

Docket No.: GR1-2790-U Sheet 5 of 34  
Serial No.: 09/649,413 Filing Date: 08/26/00  
Applicant: MATHUR, Vijay K.  
Title: MULTI-PHASE CALCIUM SILICATE HYDRATES,  
METHODS FOR THEIR PREPARATION, et al  
CALL: R. Reams Goodloe, Jr.  
Phone: (253) 859-9128/ Reg.#32,466/ Cust#20793

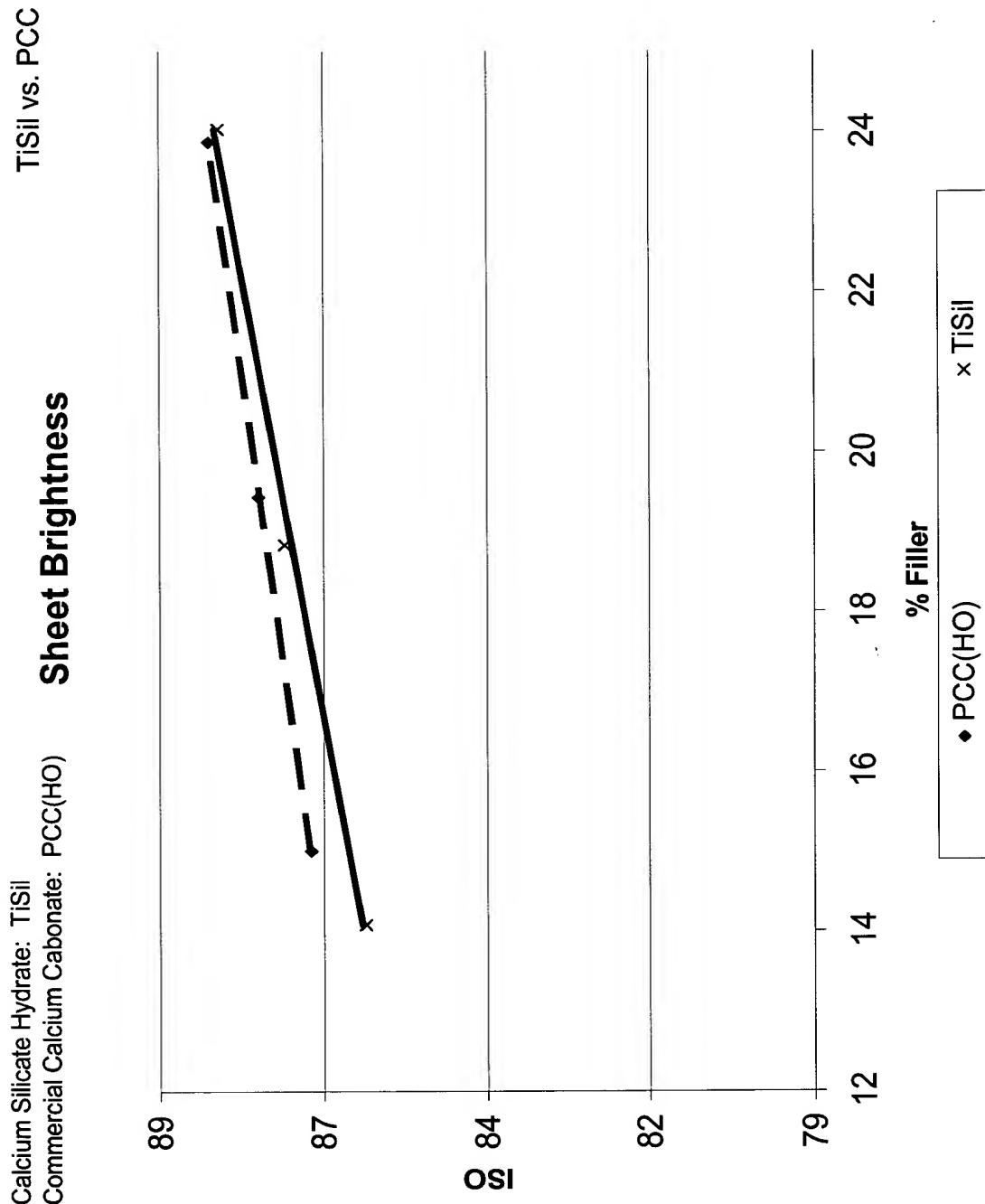


Fig 10: Sheet Brightness results for TiSil and PCC(HO)

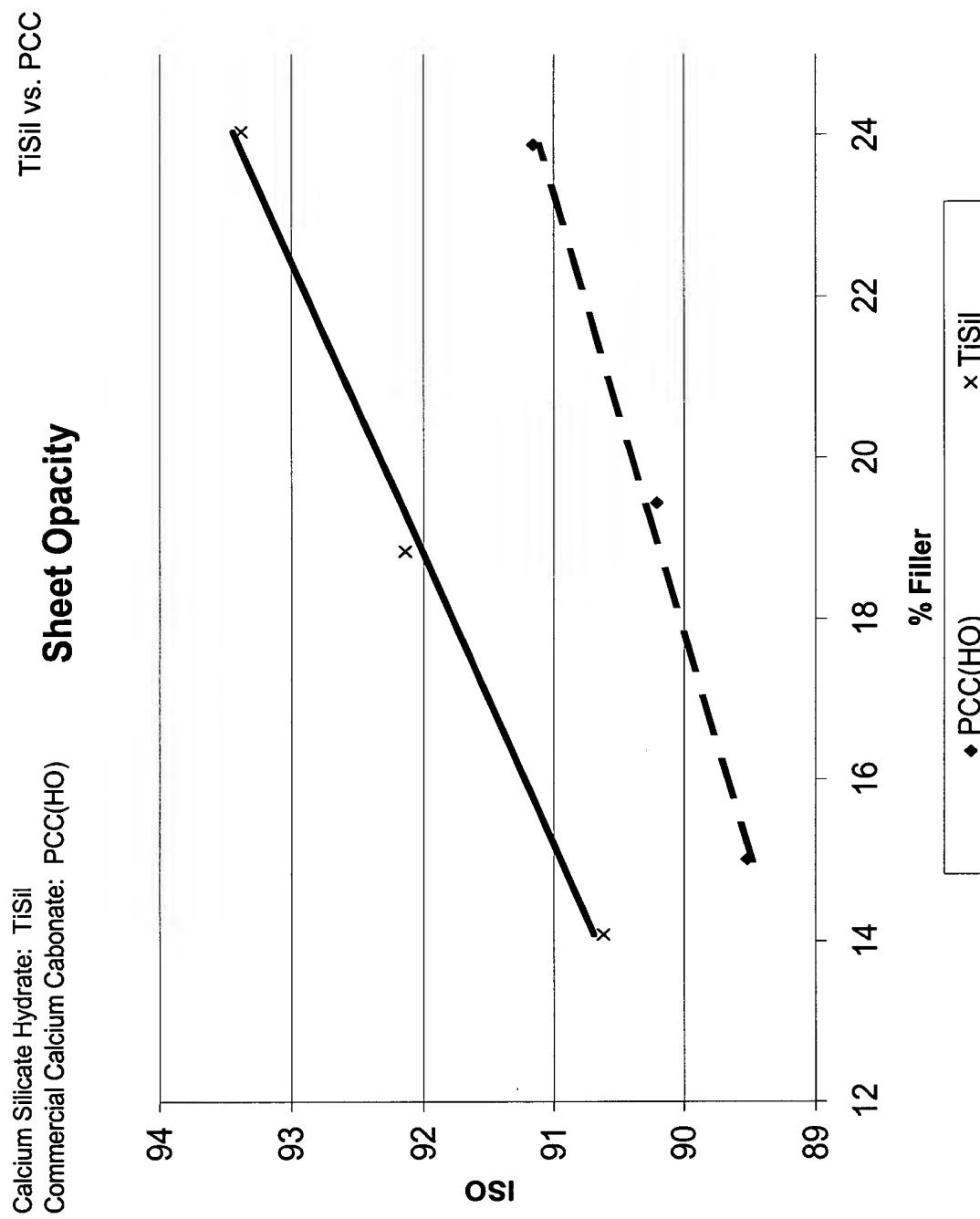


Fig 11: Sheet Opacity results for TiSil and PCC(HO)

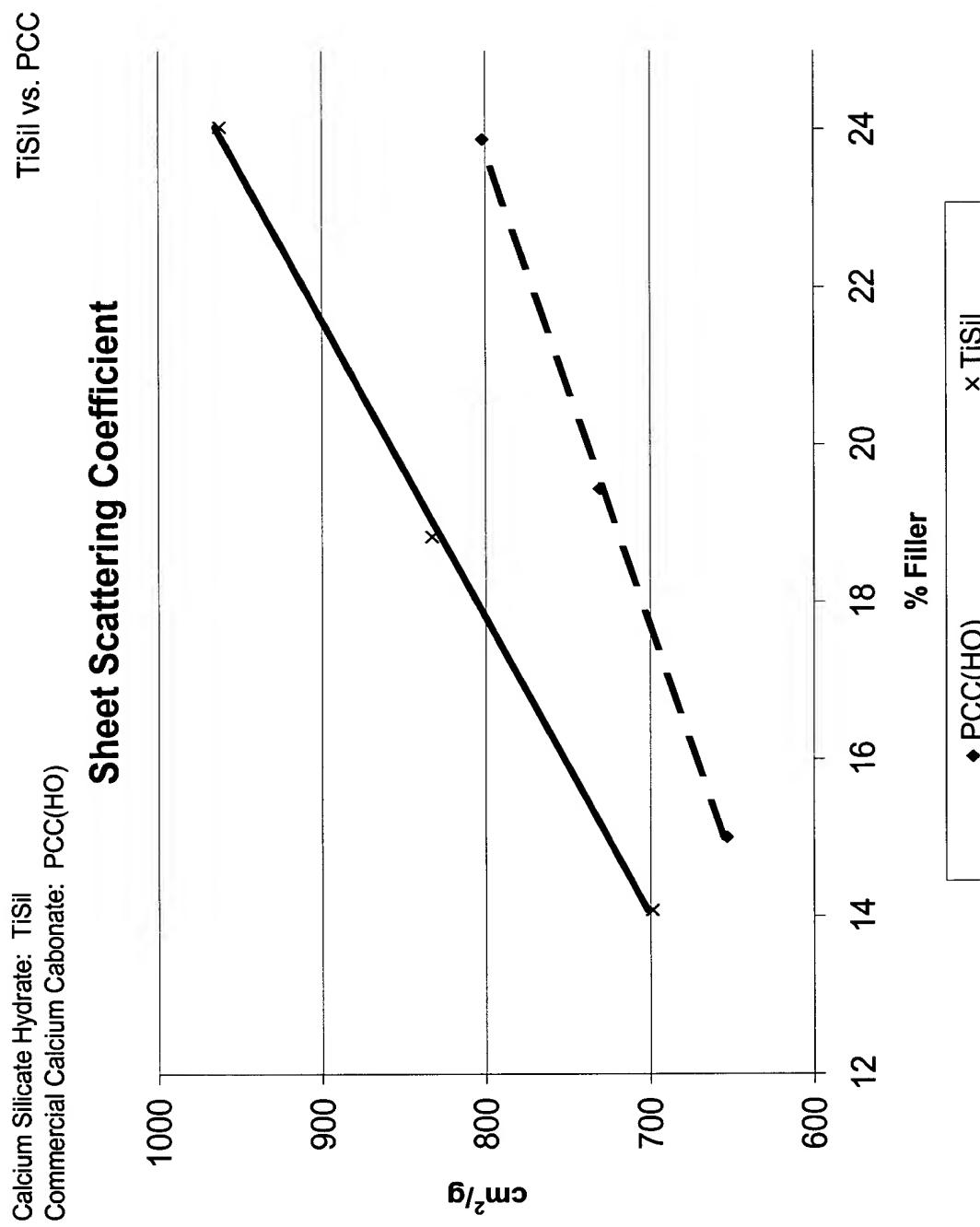


Fig 12: Sheet Scattering Coefficient results for TiSil and PCC(HO)

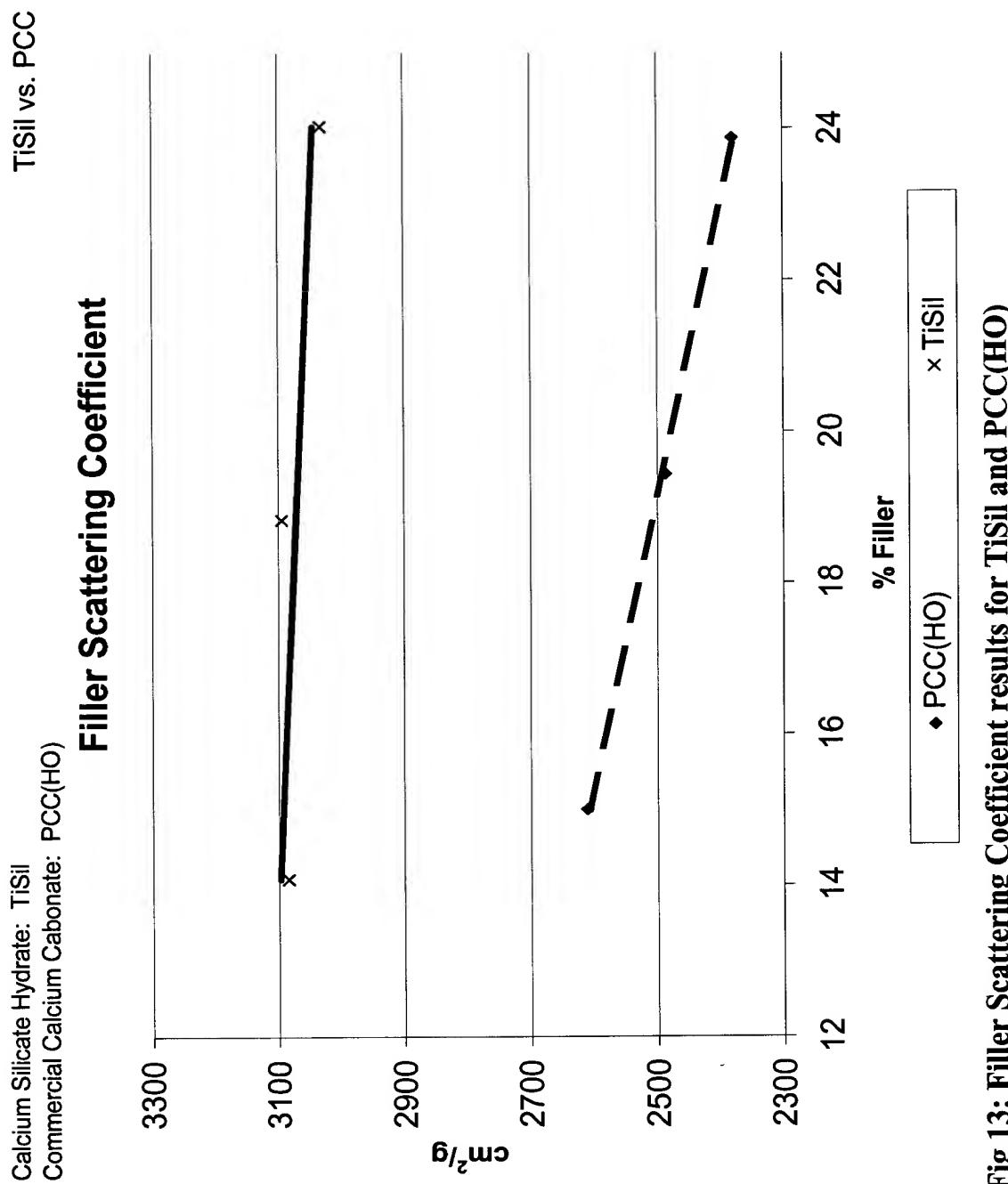


Fig 13: Filler Scattering Coefficient results for TiSil and PCC(HO)

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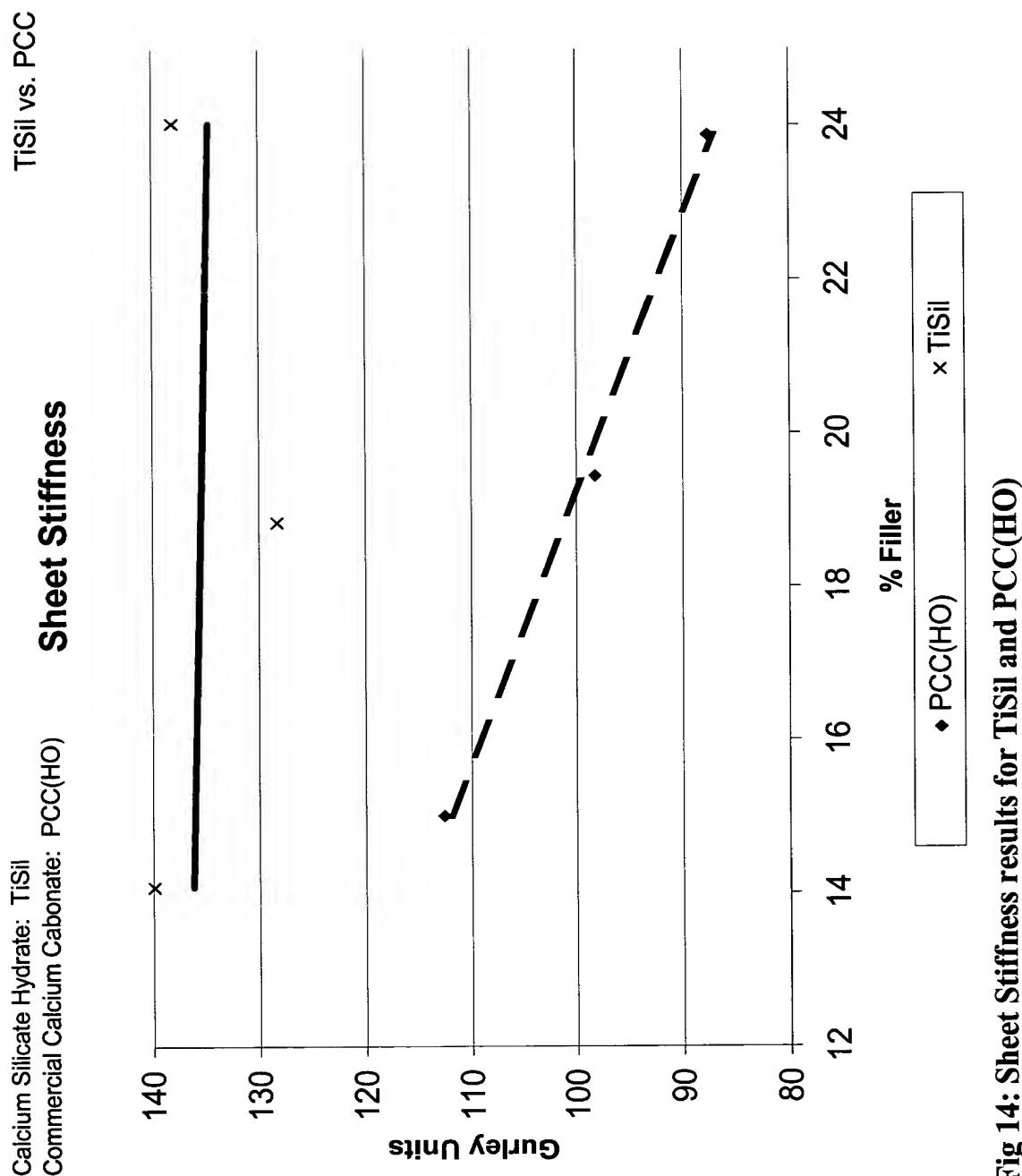


Fig 14: Sheet Stiffness results for TiSil and PCC(HO)

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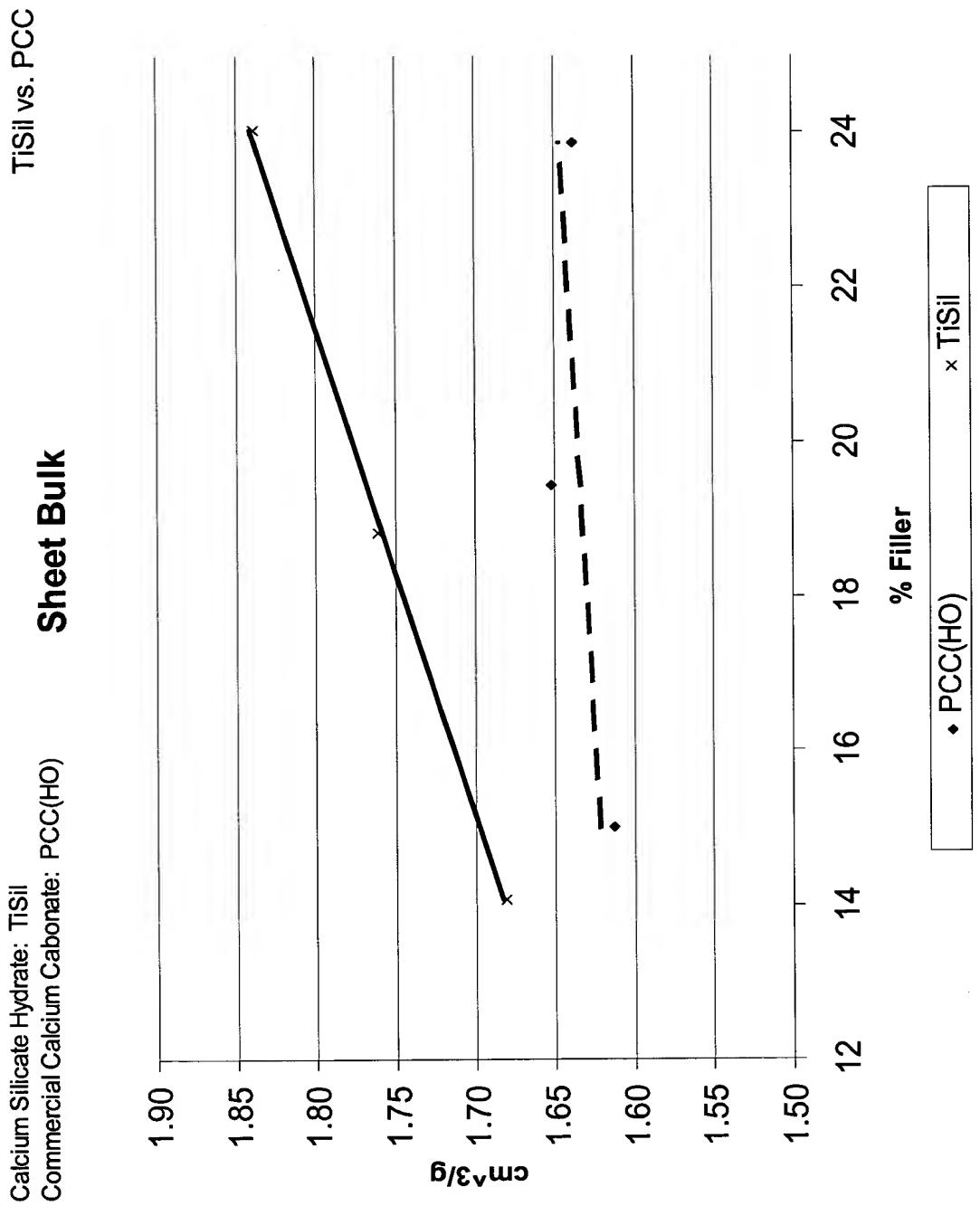


Fig 15: Sheet Bulk results for TiSil and PCC(HO)

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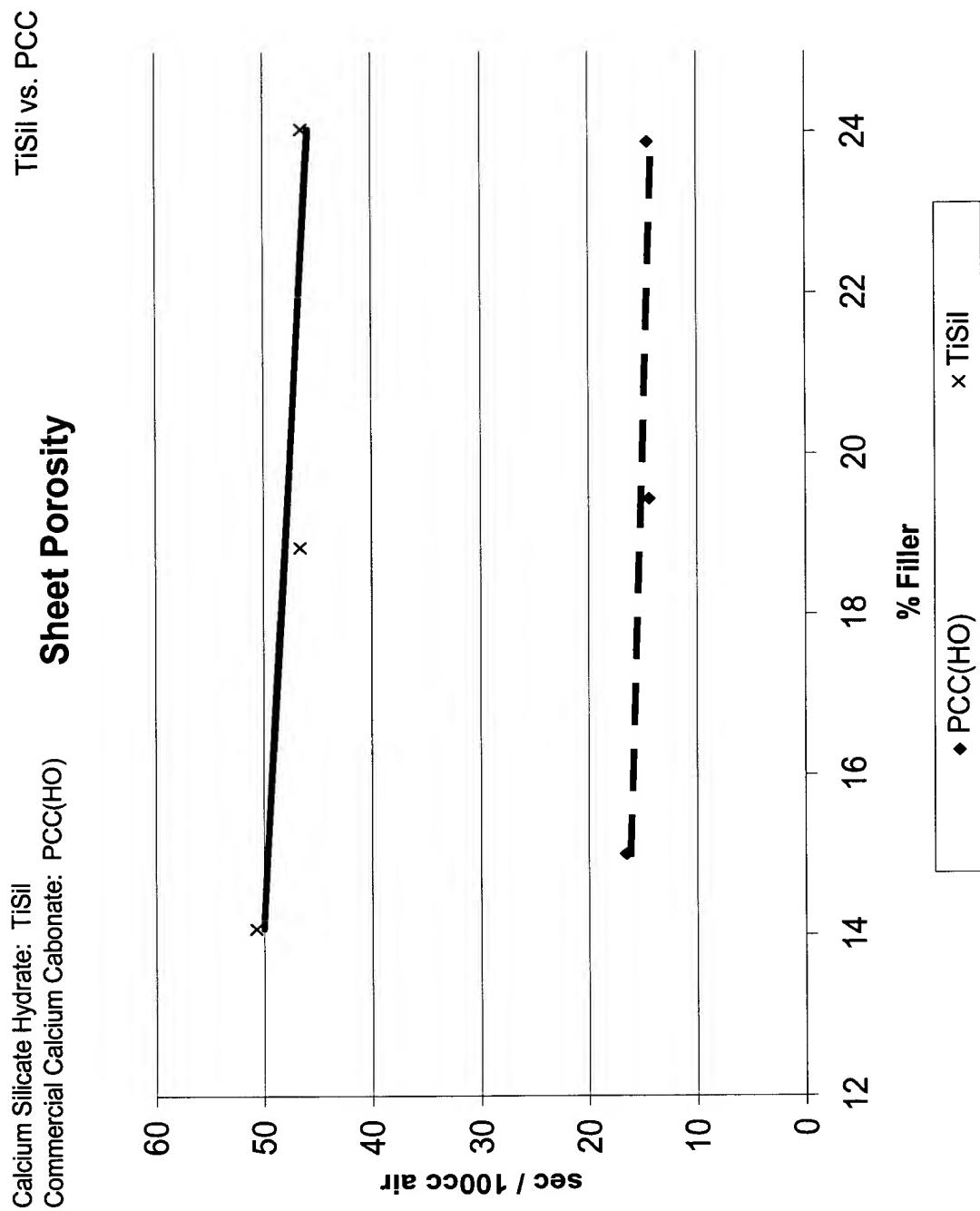


Fig 16: Sheet Porosity results for TiSil and PCC(HO)

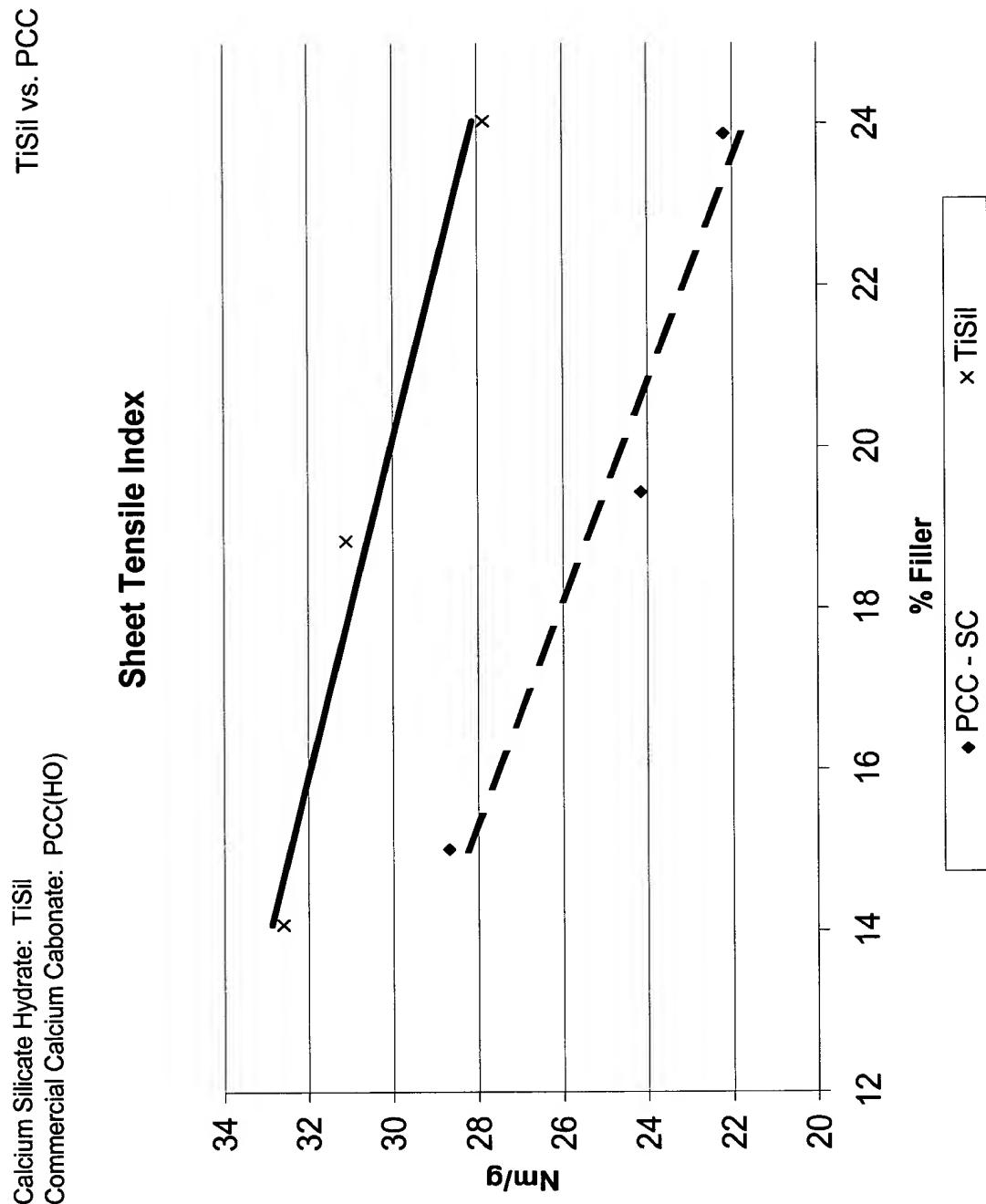


Fig 17: Sheet Tensile Index results for TiSil and PCC(HO)

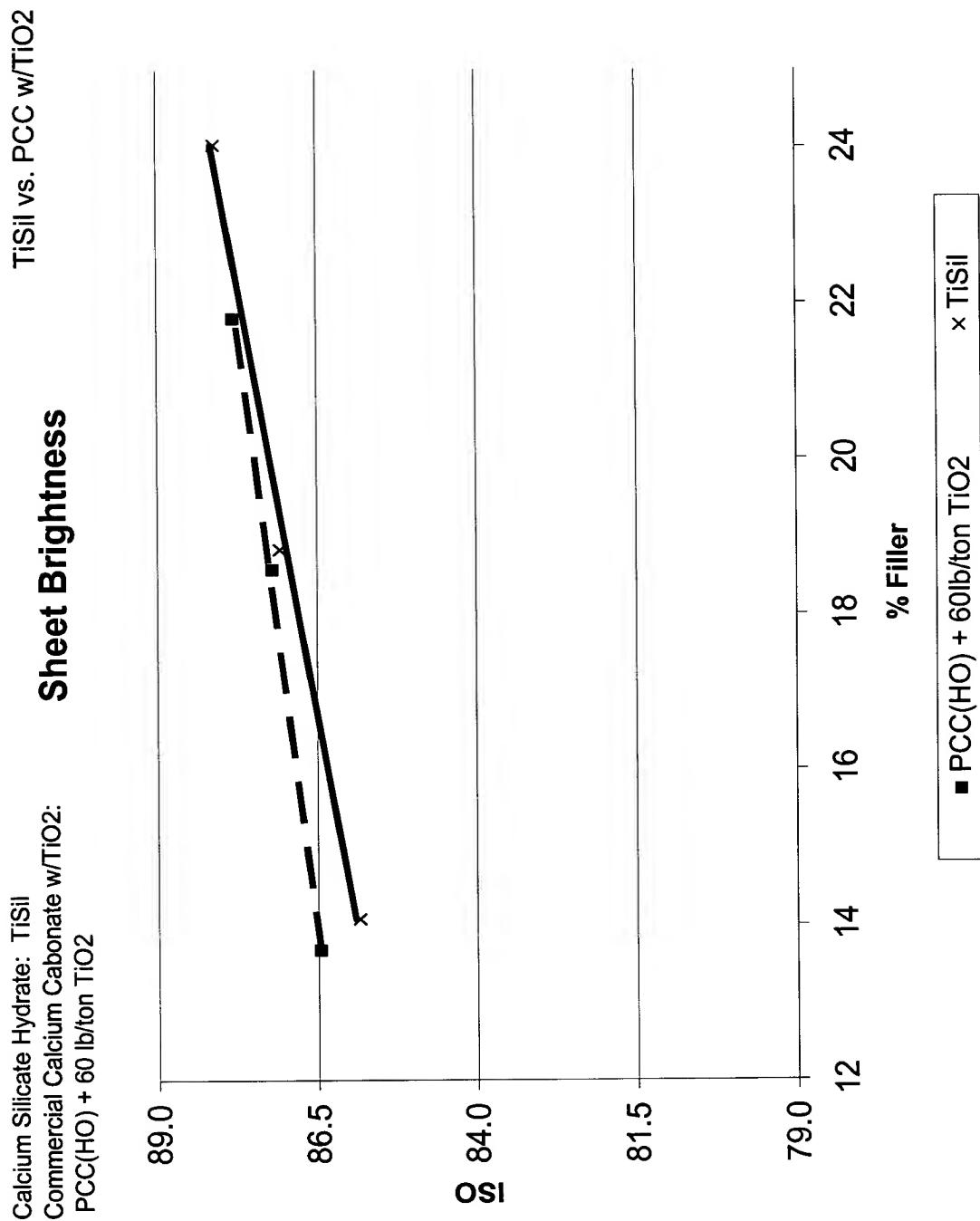


Fig 18: Sheet Brightness results for TiSil and PCC(HO) w/TiO<sub>2</sub>

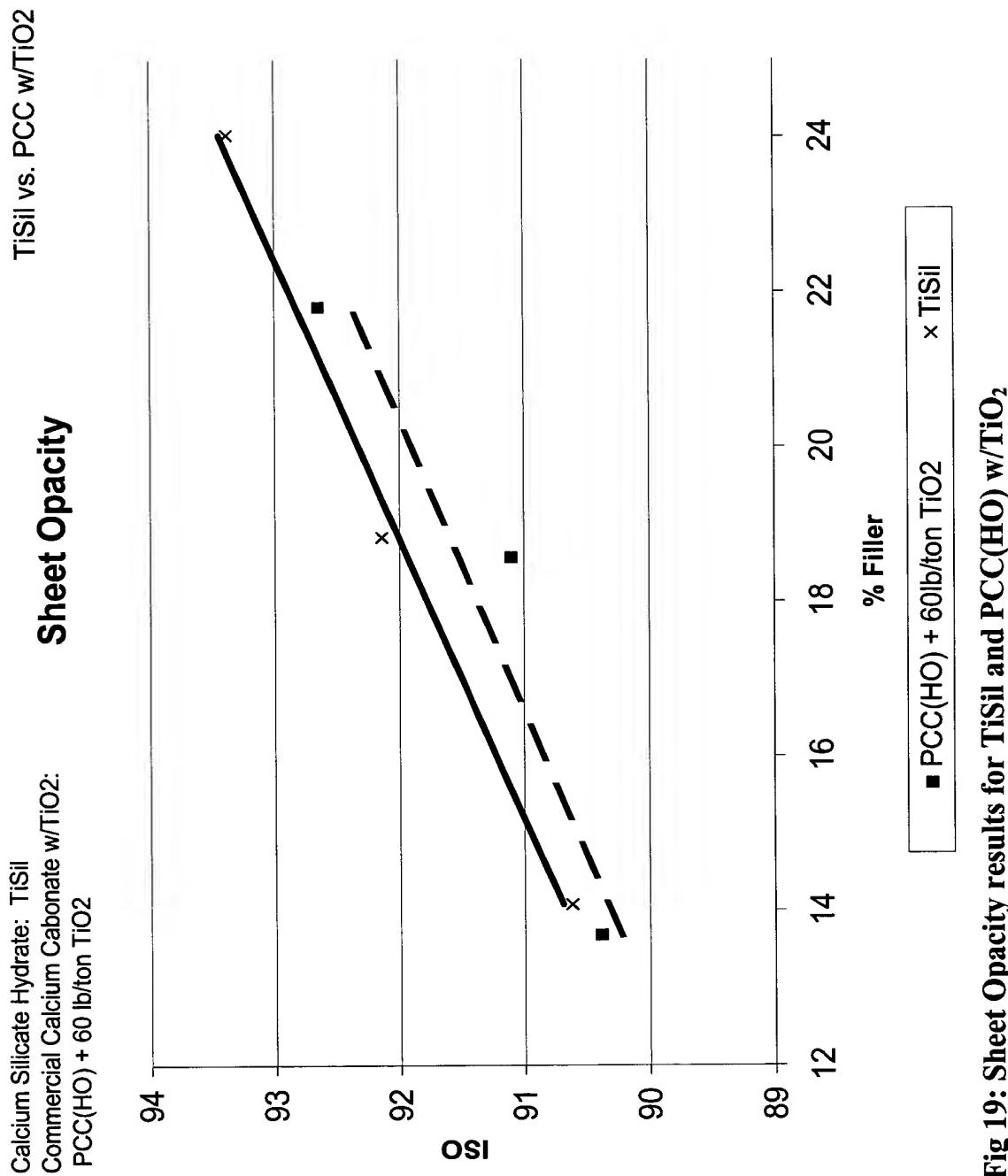


Fig 19: Sheet Opacity results for TiSil and PCC(HO) w/TiO<sub>2</sub>

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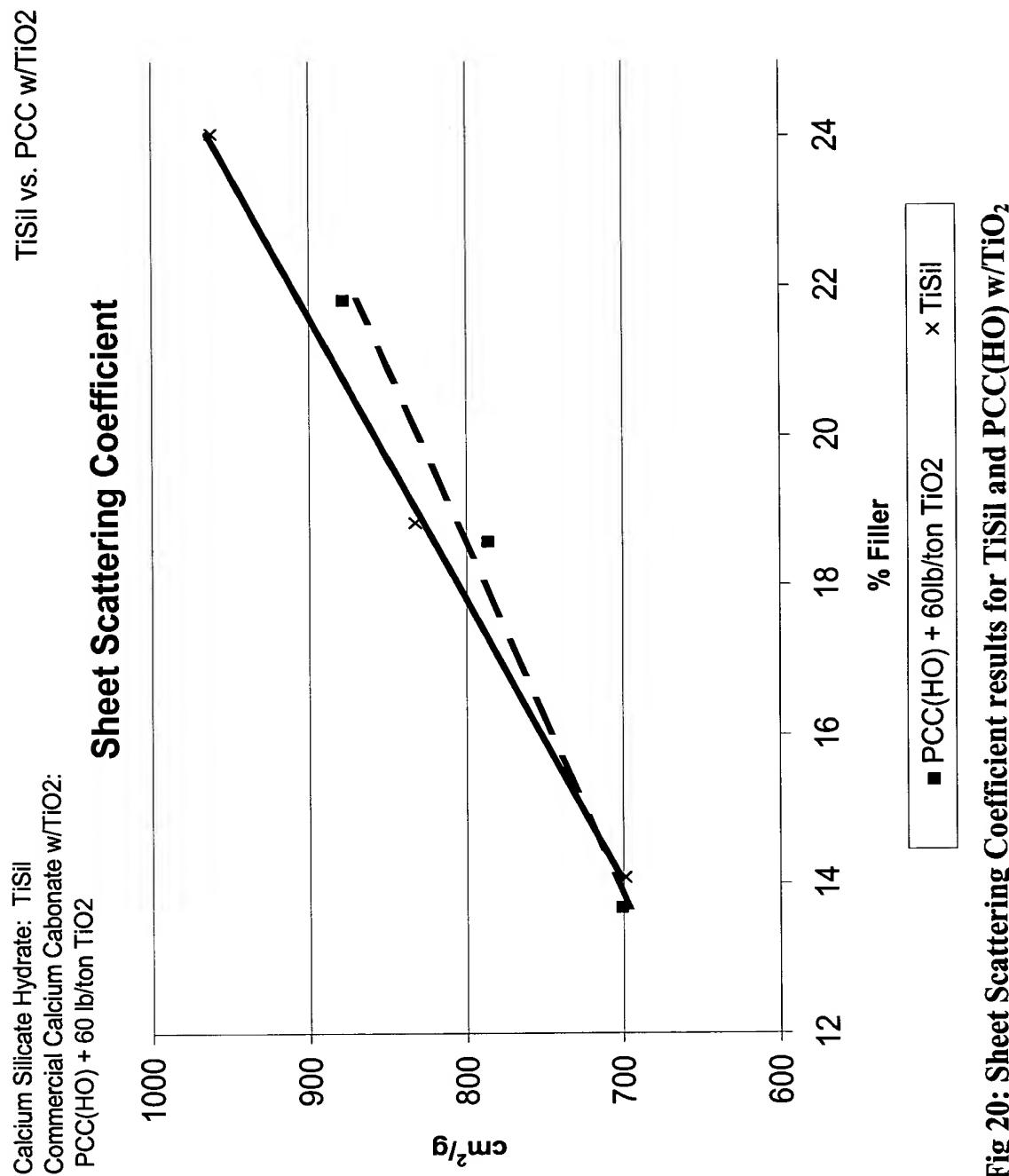


Fig 20: Sheet Scattering Coefficient results for TiSil and PCC(HO) w/TiO<sub>2</sub>

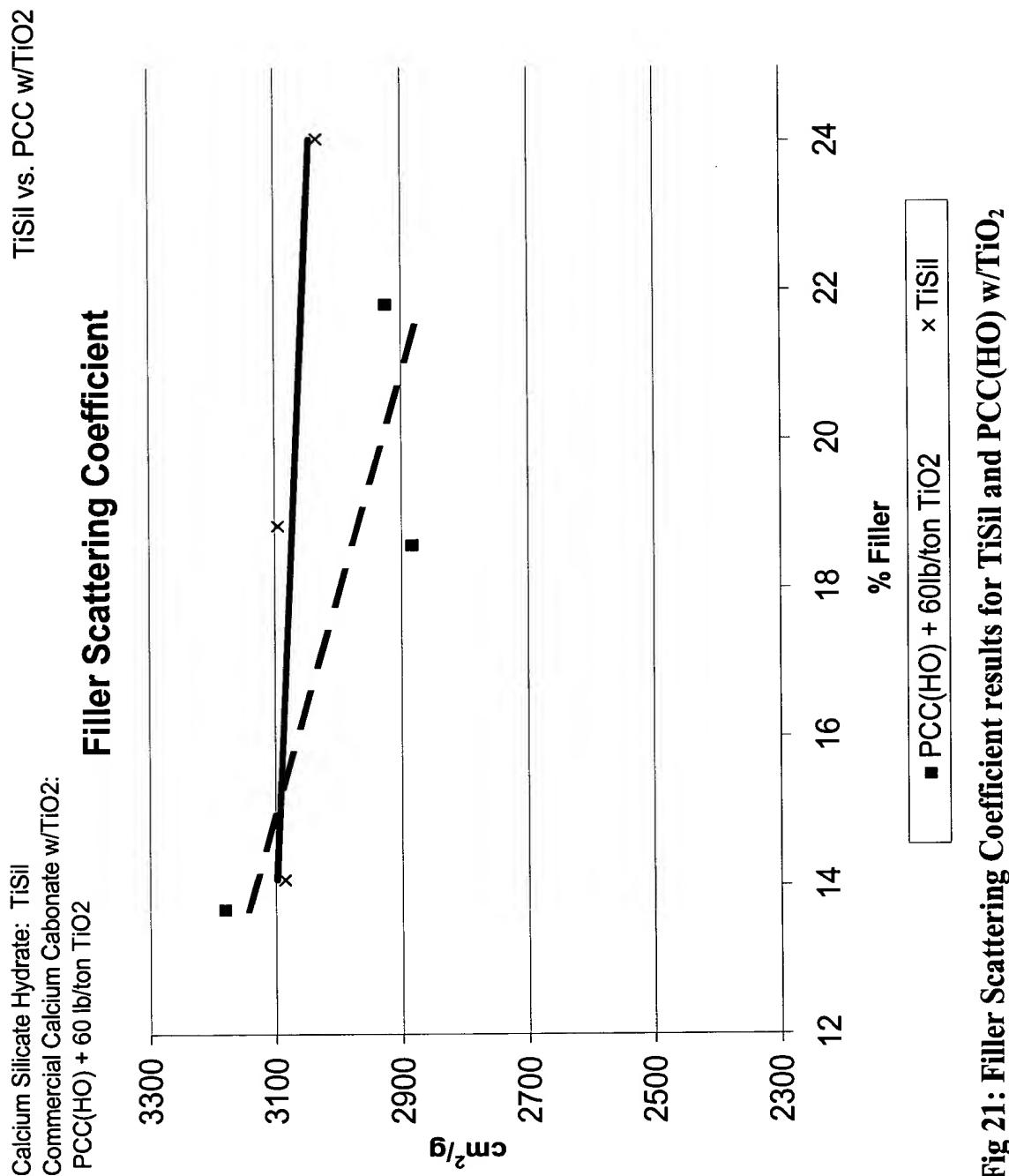


Fig 21: Filler Scattering Coefficient results for TiSil and PCC(HO) w/TiO<sub>2</sub>

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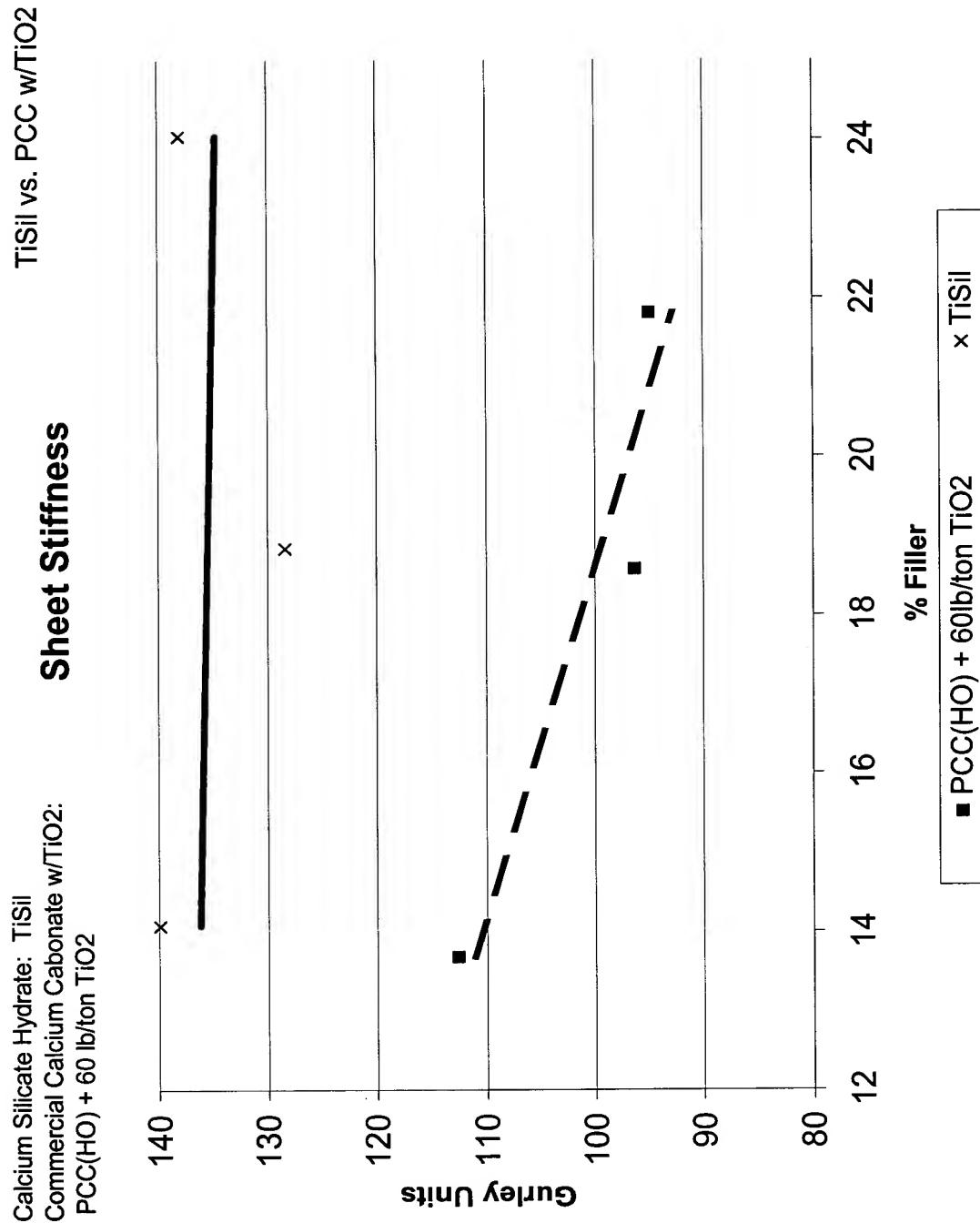


Fig 22: Sheet Stiffness results for TiSil and PCC(HO) w/TiO<sub>2</sub>

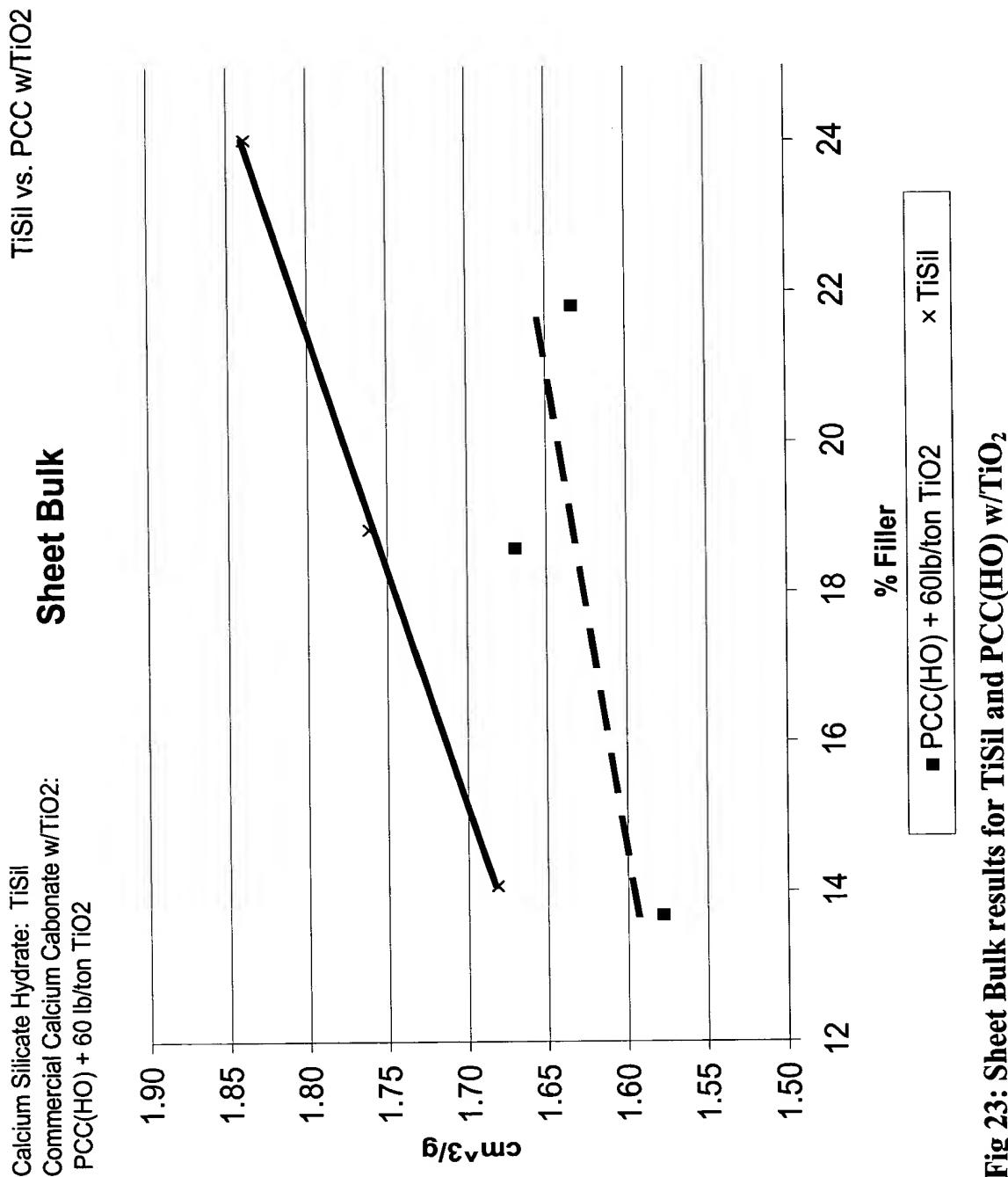


Fig 23: Sheet Bulk results for TiSil and PCC(HO) w/TiO<sub>2</sub>

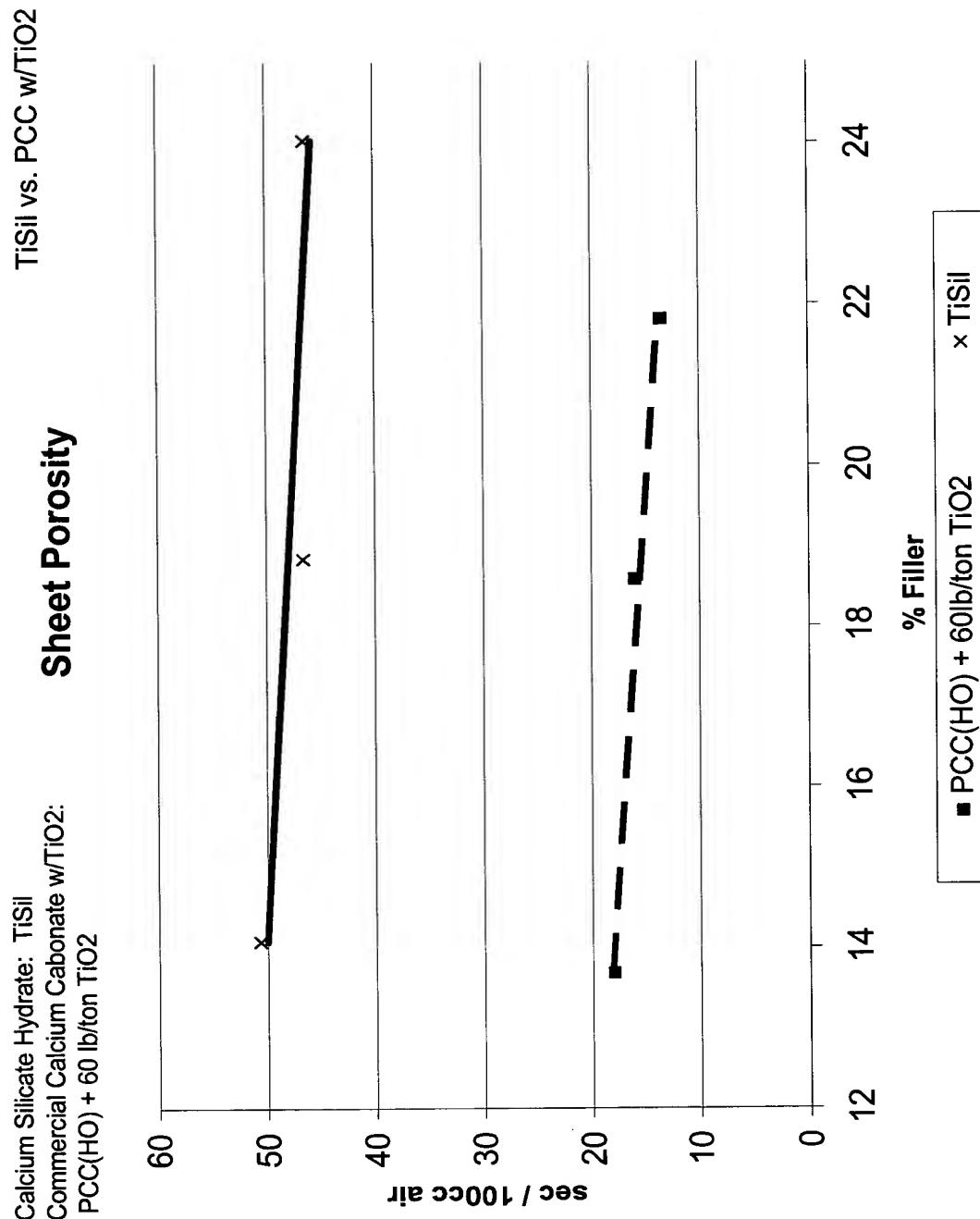


Fig 24: Sheet Porosity results for TiSil and PCC(HO) w/TiO<sub>2</sub>



Fig 25: Sheet Tensile Index results for TiSil and PCC(HO) w/TiO<sub>2</sub>

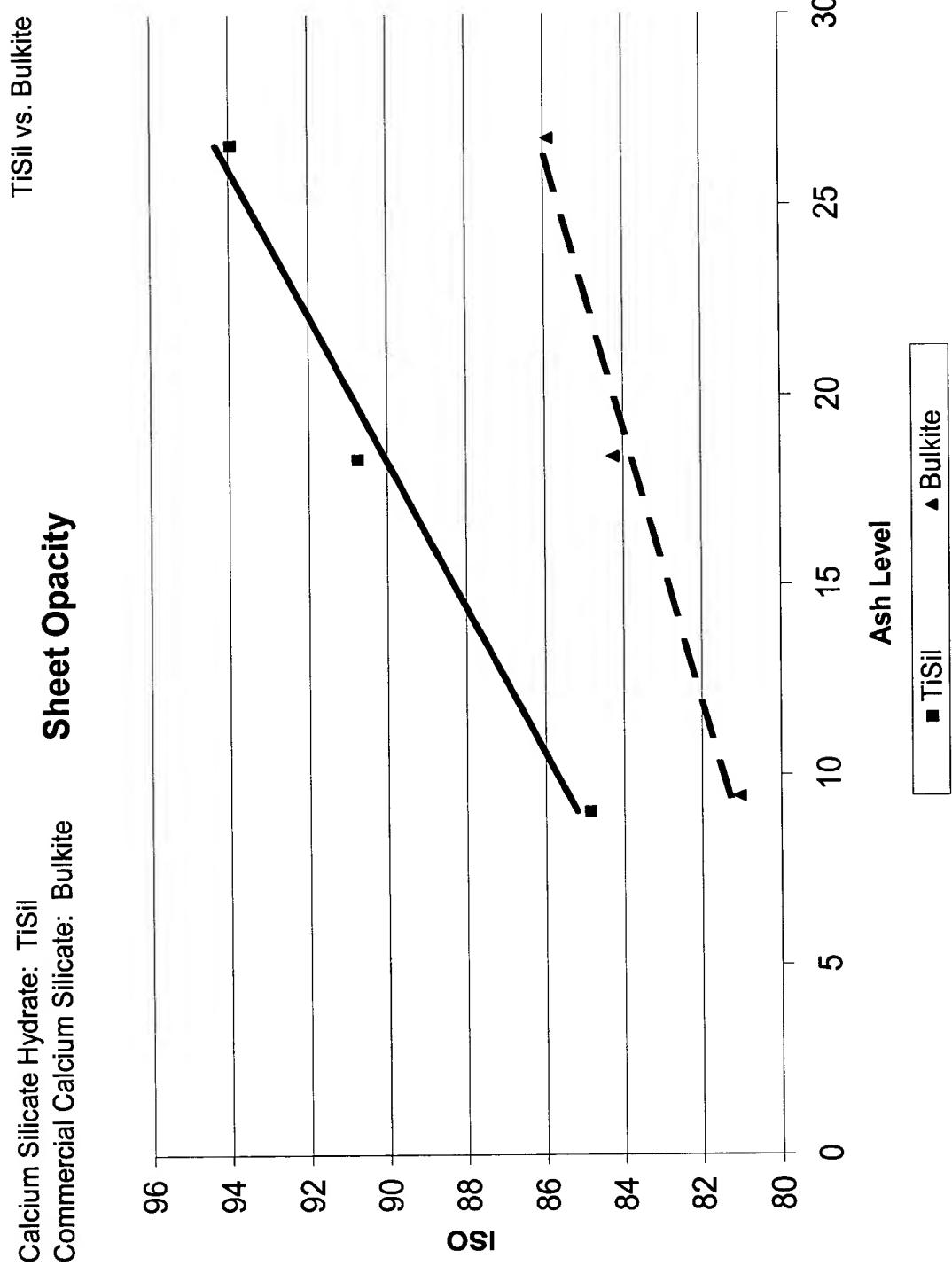
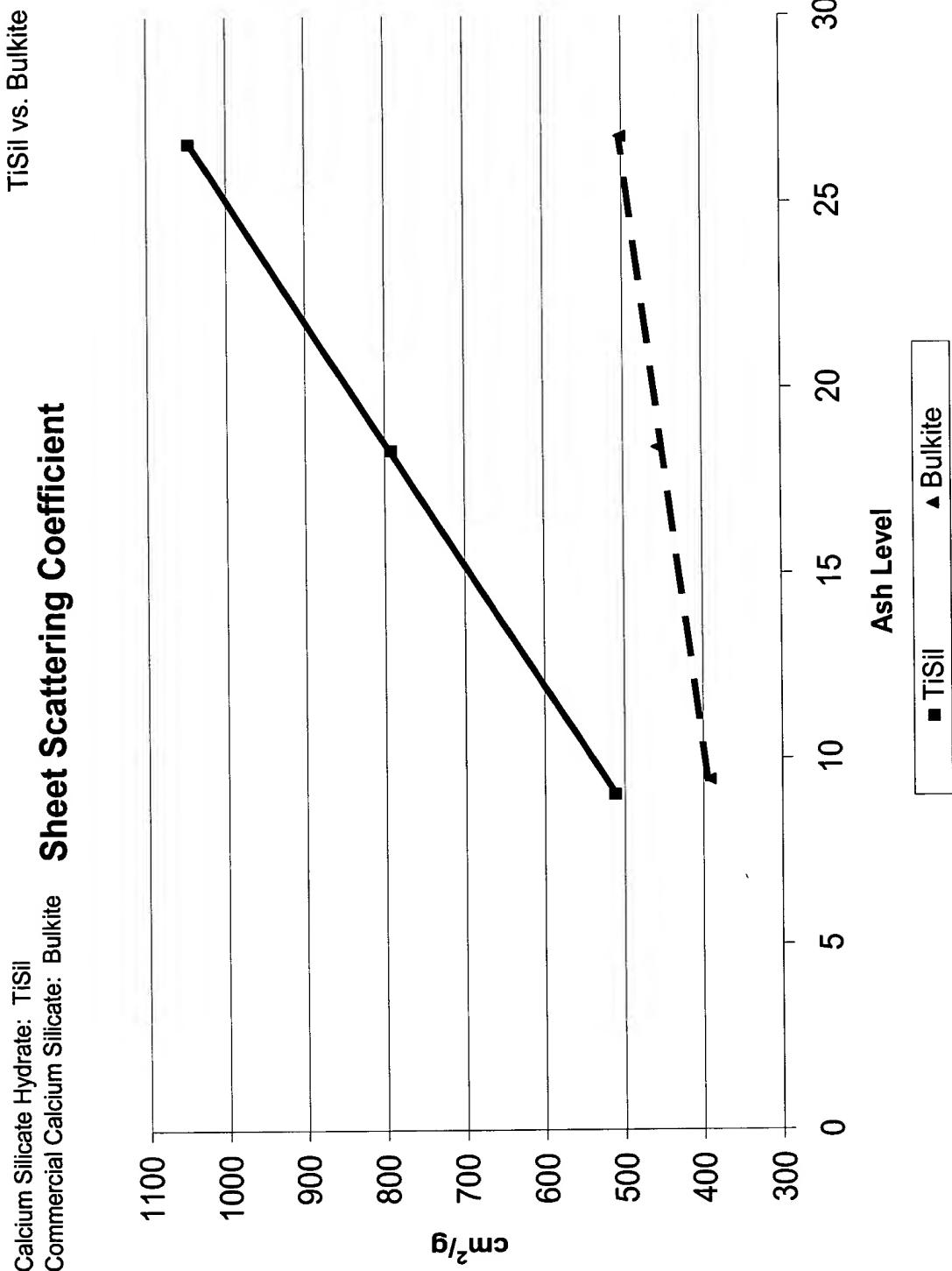


Fig 26: Sheet Opacity results for TiSil and Bulkite



**Fig 27: Sheet Scattering Coefficient results of TiSil and Bulkite**

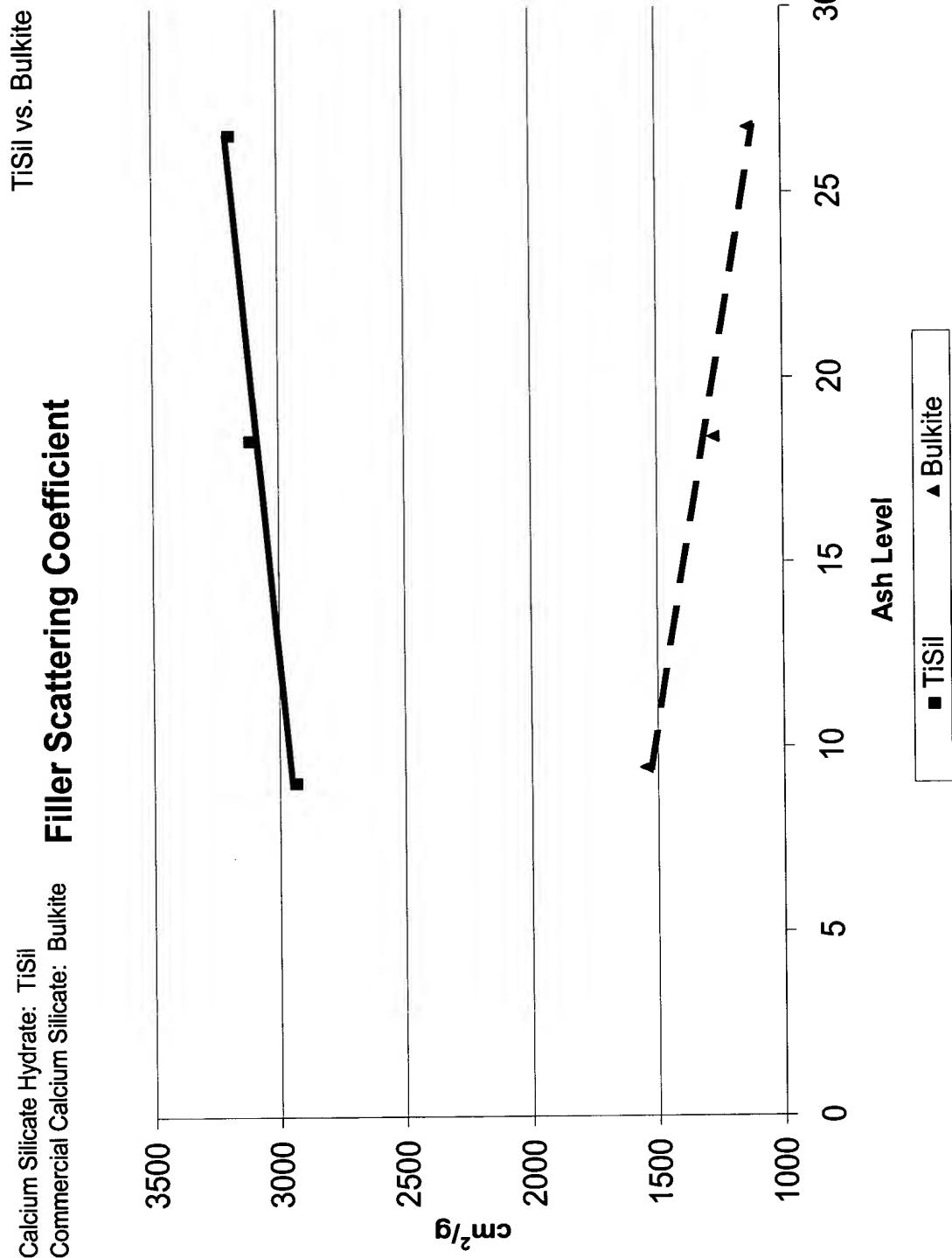


Fig 28: Filler Scattering Coefficient results for TiSil and Bulkite

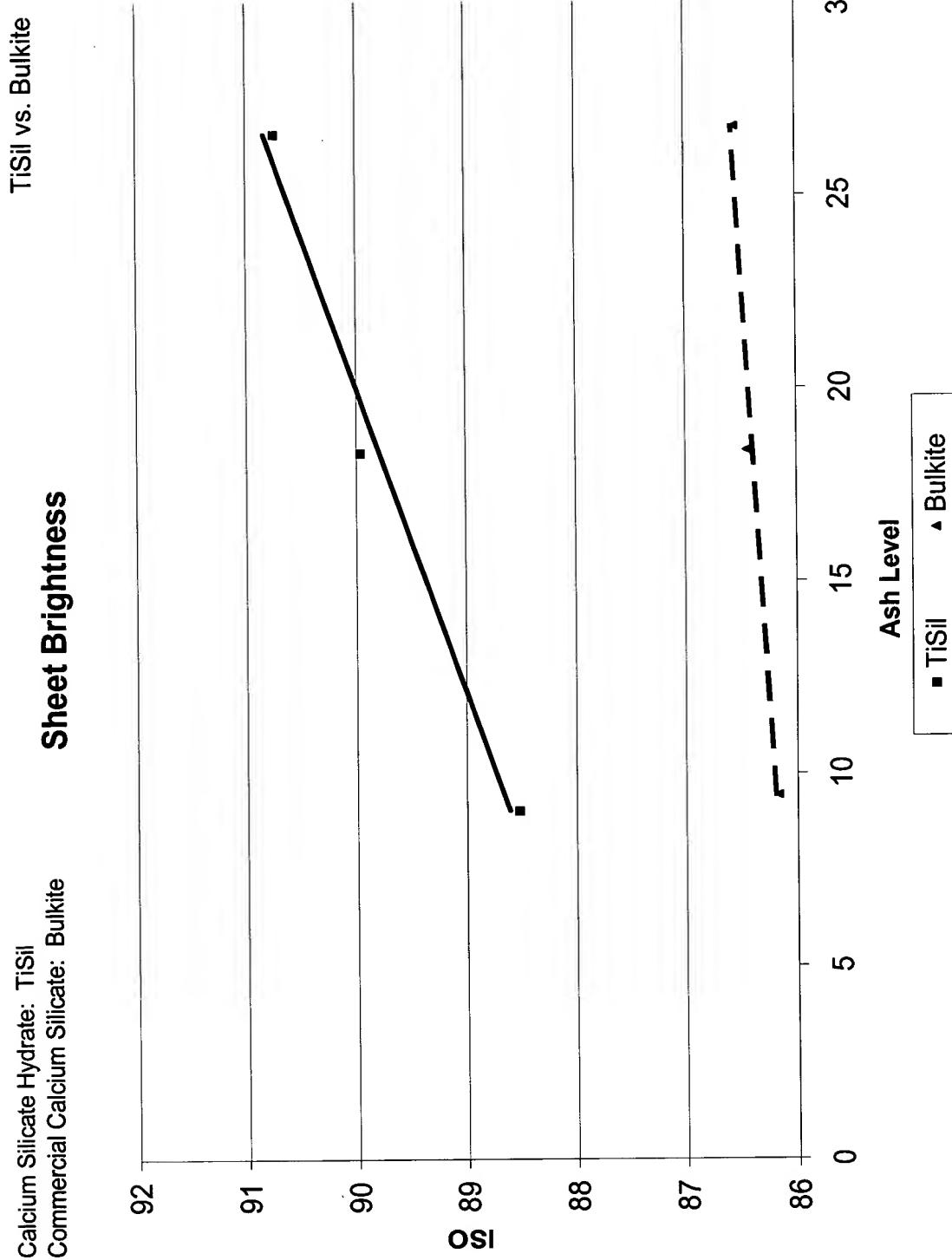


Fig 29: Sheet Brightness results for TiSil and Bulkite

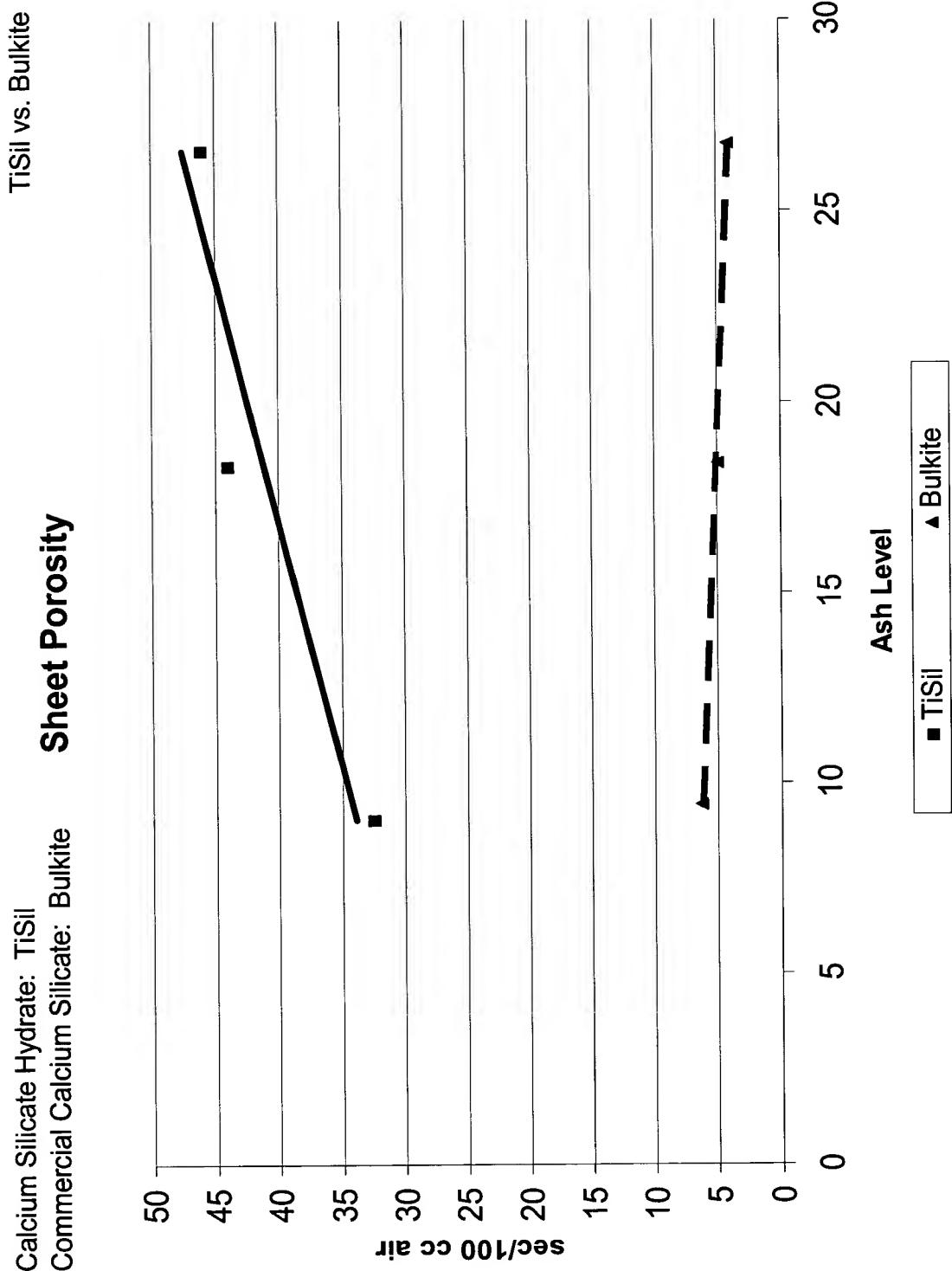


Fig 30: Sheet Porosity results for TiSil and Bulkite

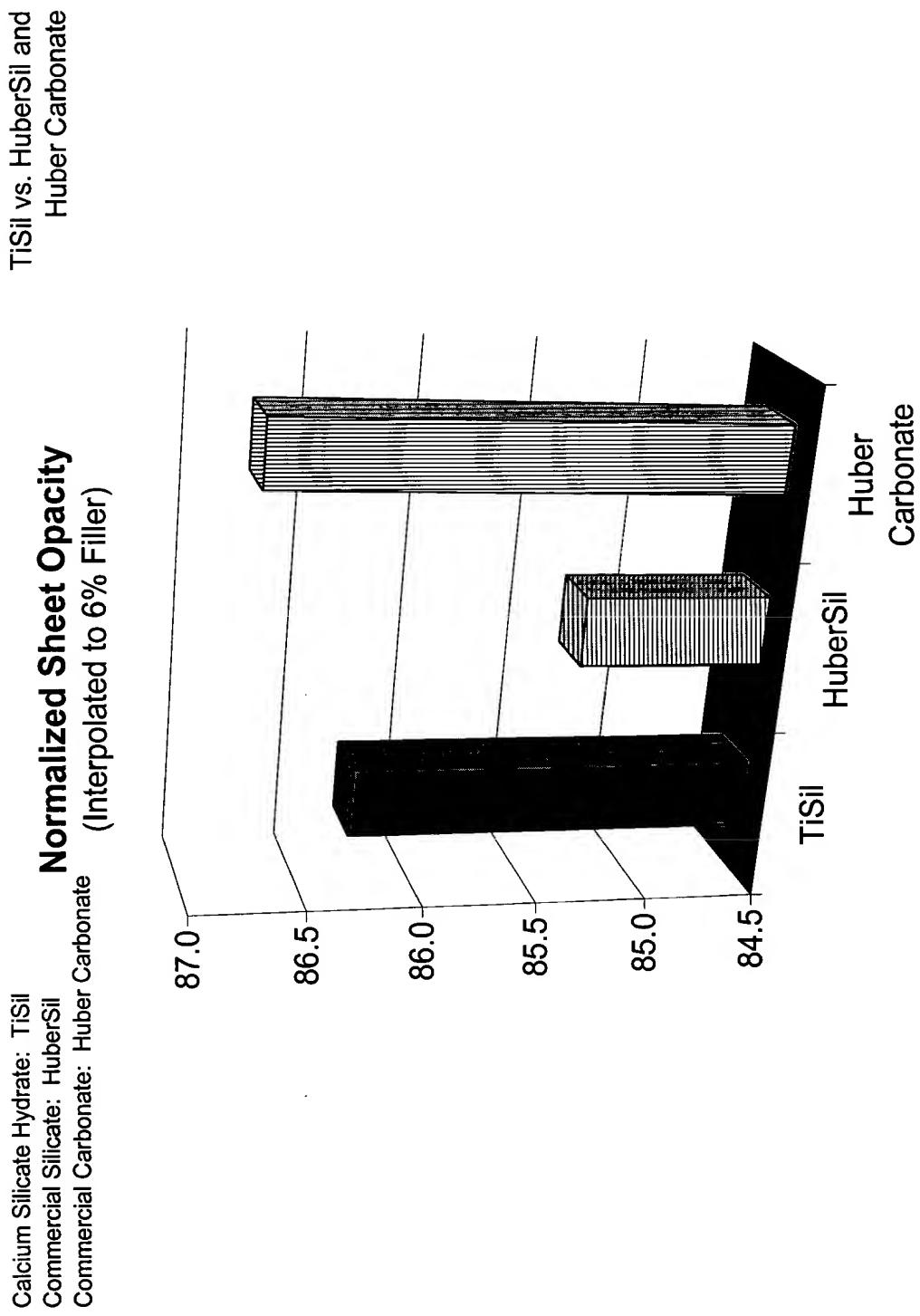
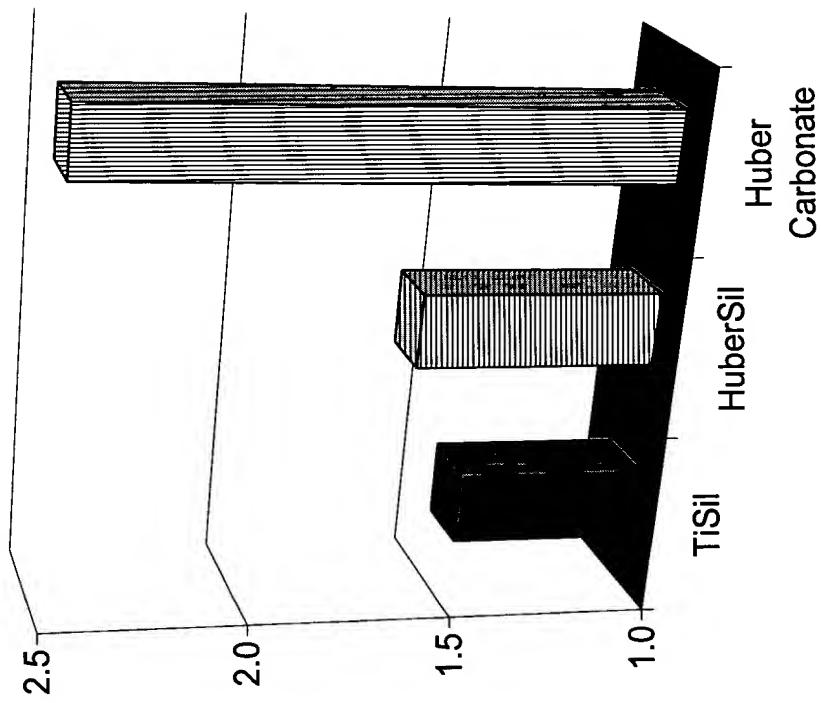


Fig 31: Normalized Sheet Opacity results for newsprint sheets containing various fillers, interpolated to 6% Ash.

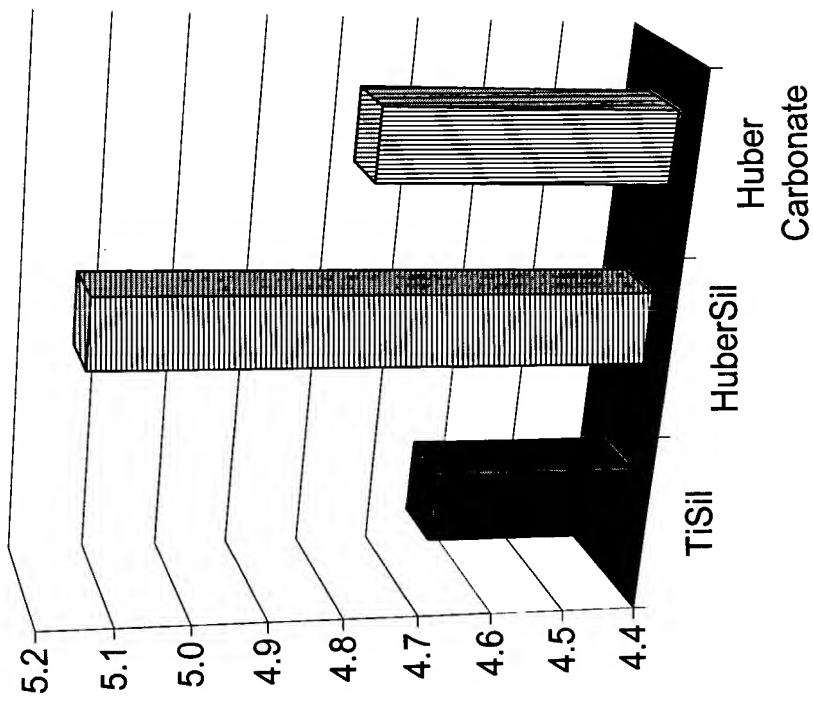
TiSil vs. HuberSil and  
Huber Carbonate  
Huber Carbonate  
Commercial Silicate: Huber Carbonate  
Commercial Carbonate: Huber Carbonate  
Calcium Silicate Hydrate: TiSil

**Sheet Ink Penetration**  
(Interpolated to 6% Filler)



**Fig 32: Sheet Ink Penetration results on newsprint sheets containing various fillers, interpolated to 6% Ash.**

Calcium Silicate Hydrate: TiSil  
Commercial Silicate: HuberSil  
Commercial Carbonate: Huber Carbonate  
**Sheet Show Through**  
(Interpolated to 6% Filler)



**Fig 33: Sheet Show Through** results on newsprint containing various fillers, interpolated to 6% Ash

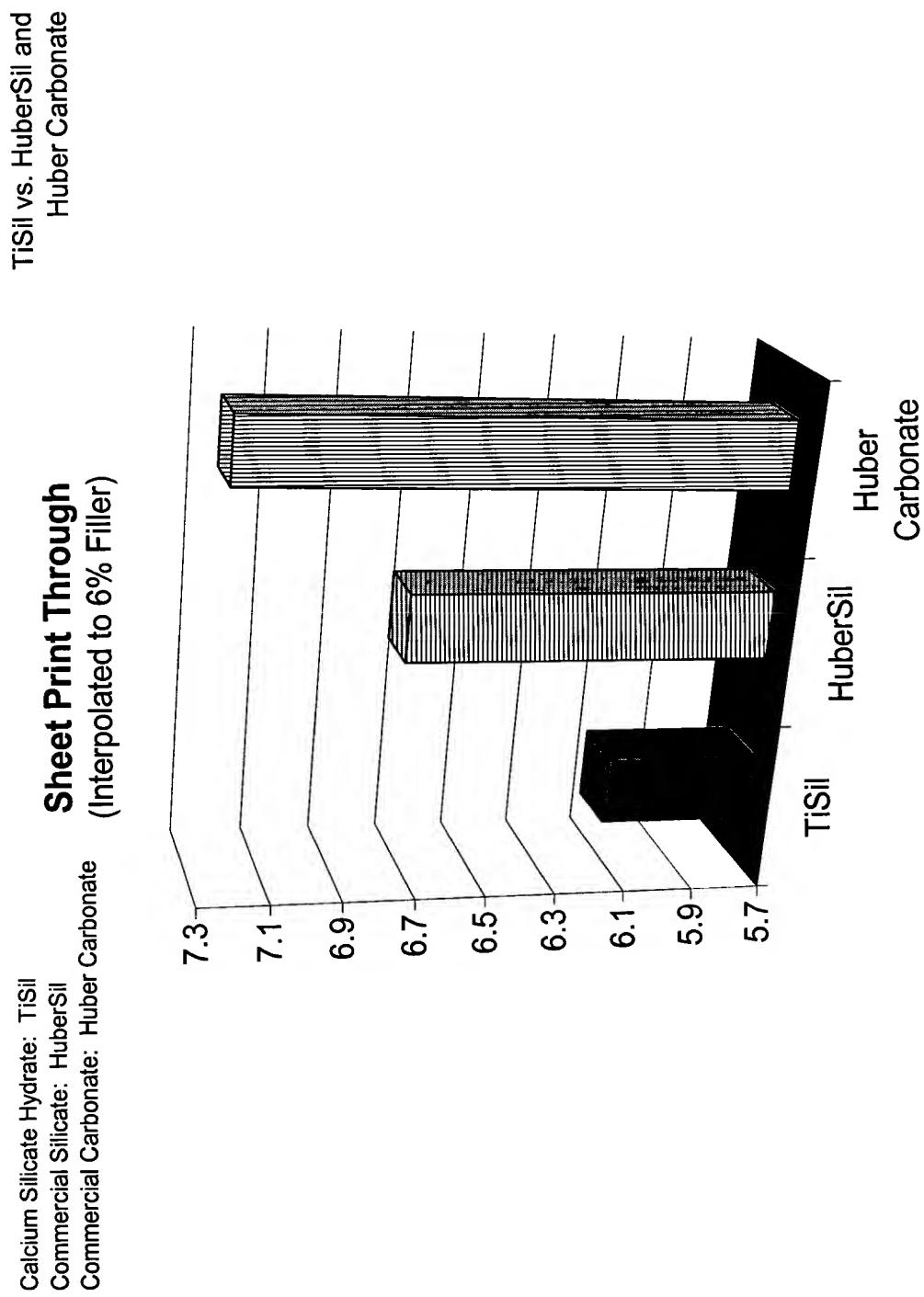


Fig. 34: Sheet Print Through results on newsprint sheets containing various fillers, interpolated to 6% Ash.

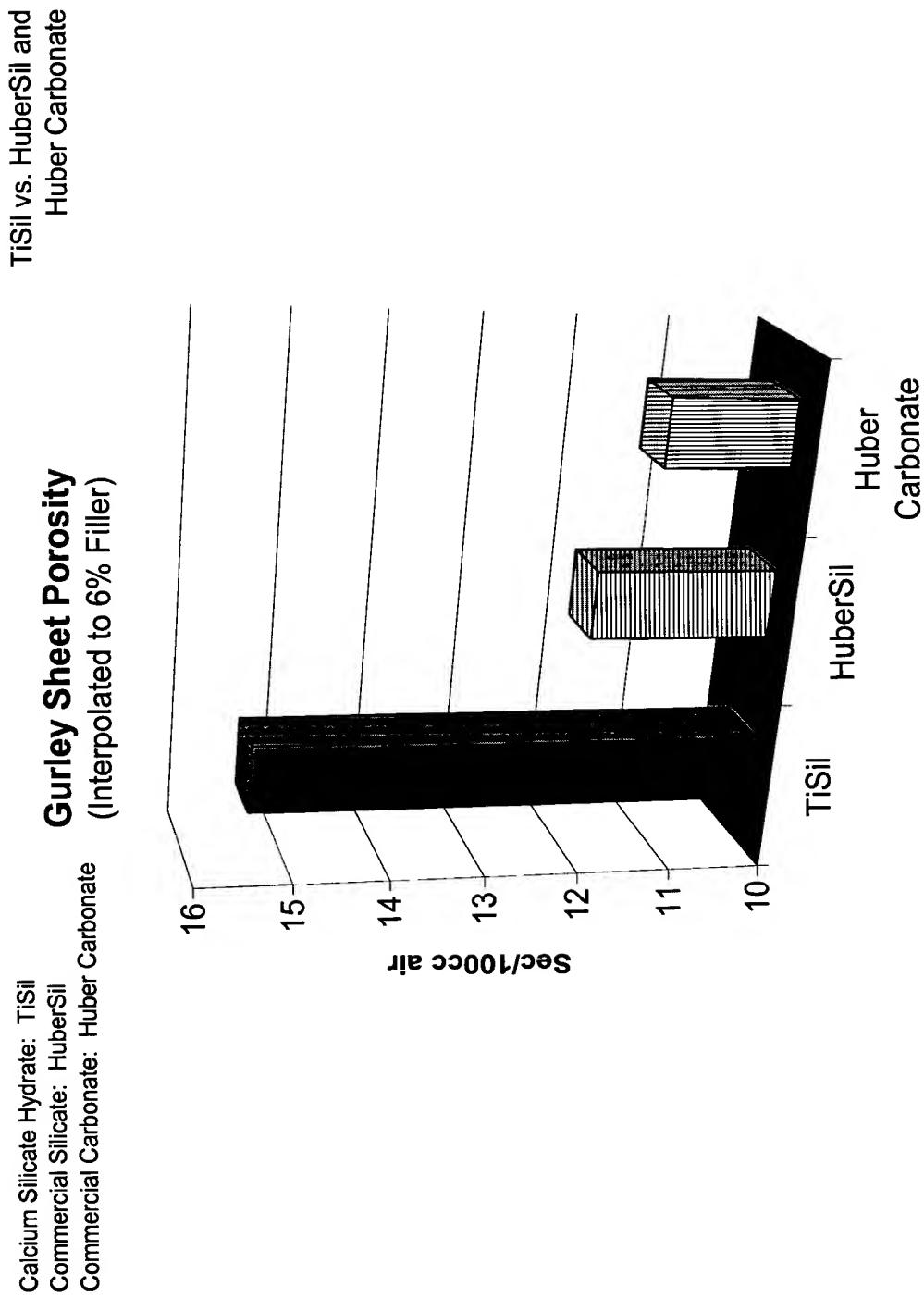
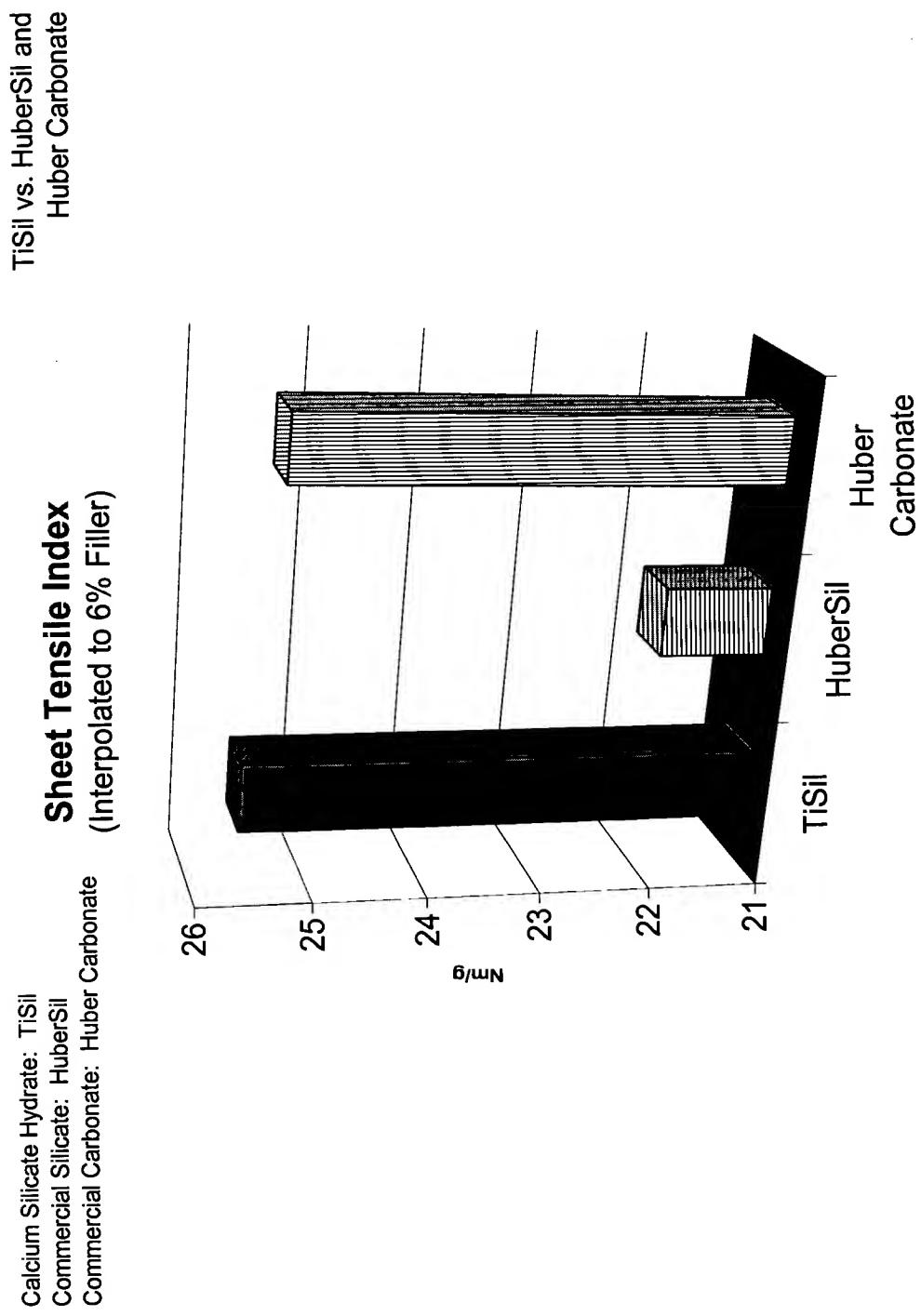


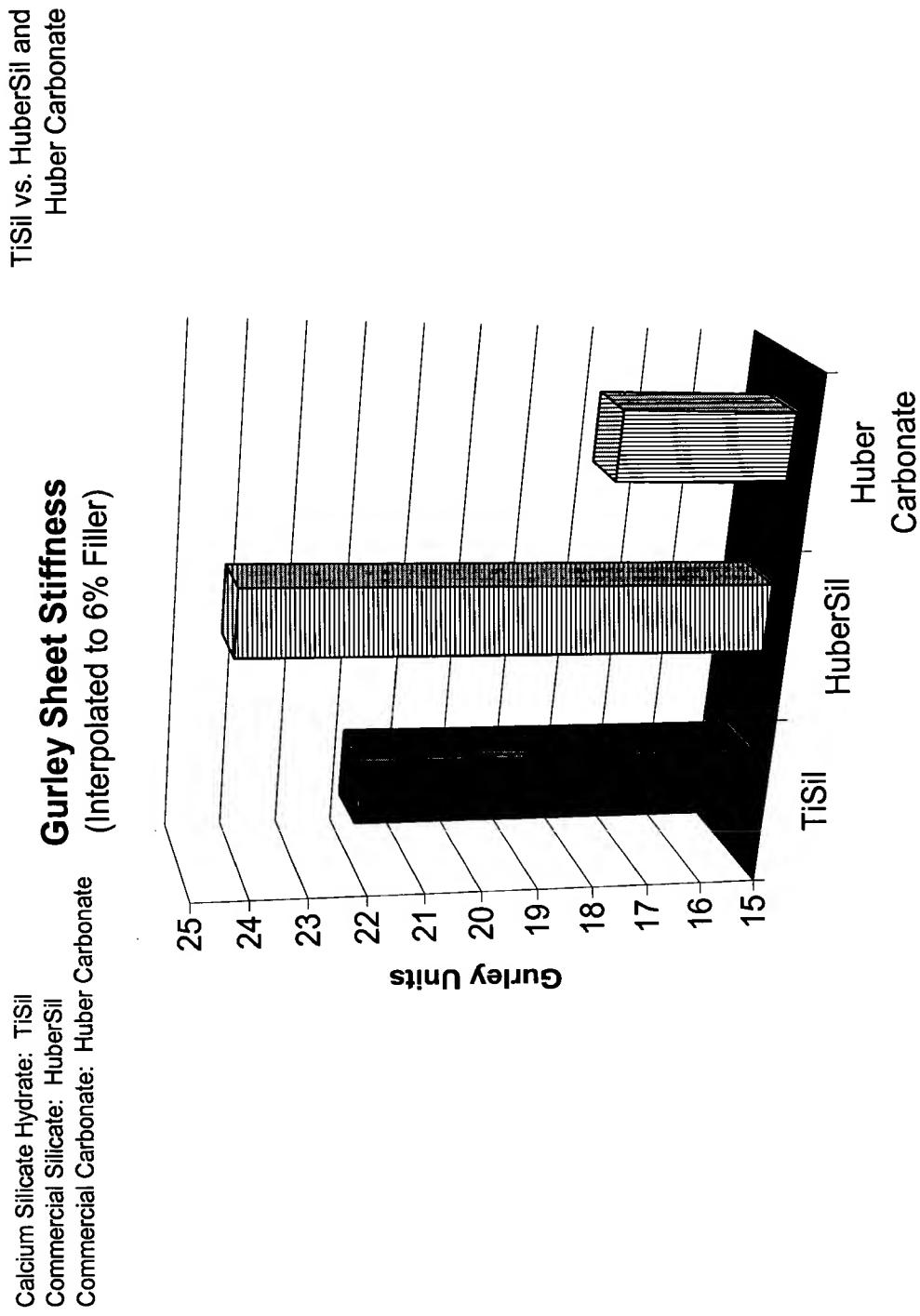
Fig 35: Gurley Sheet Porosity results for newsprint sheets containing various fillers, interpolated to 6% Ash

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**Fig 36: Sheet Tensile Index results for newsprint sheets containing various fillers, interpolated to 6% Ash**

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**Fig 37: Gurley Sheet Stiffness results for newsprint sheets containing various fillers, interpolated to 6% Ash**

Calcium Silicate Hydrate: TiSil  
Commercial Silicate: HuberSil  
Commercial Carbonate:  
Huber Carbonate

TiSil vs. HuberSil and  
Huber Carbonate

**Sheet Static Coefficient of Friction**  
(Interpolated to 6% Filler)

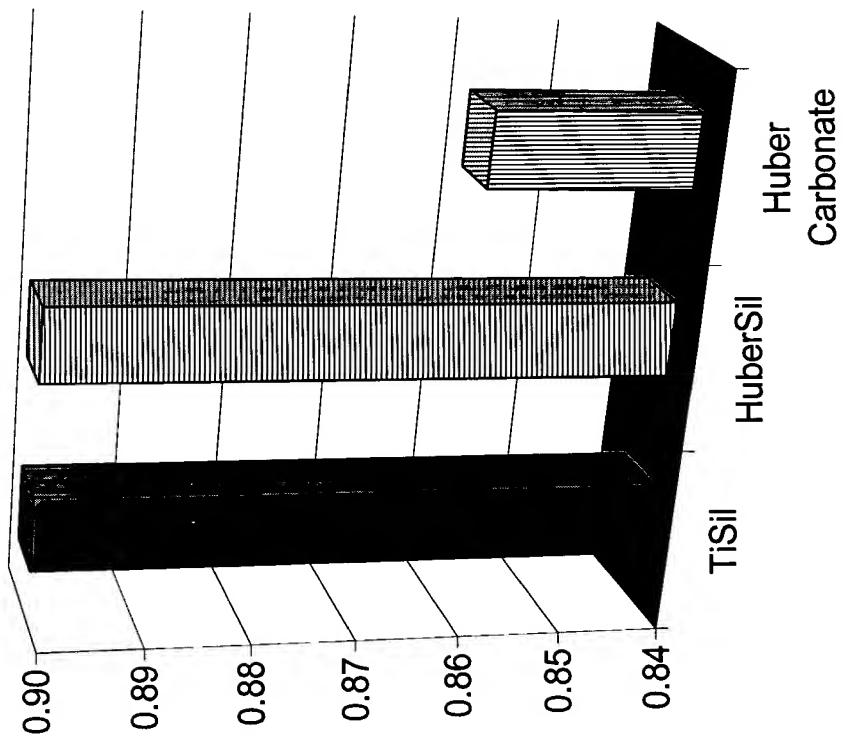
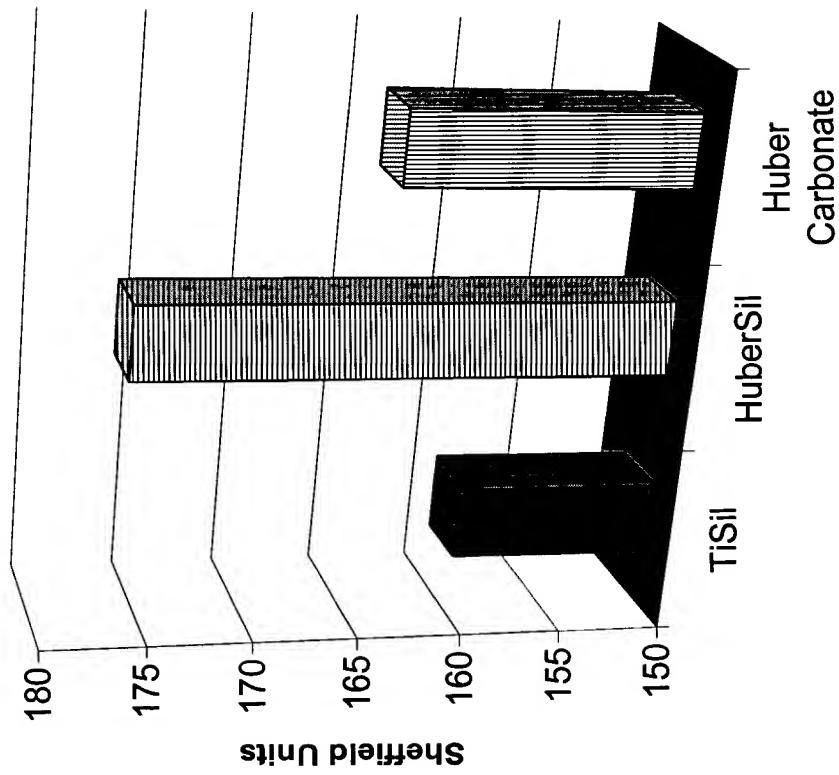


Fig 38: Sheet Static Coefficient of Friction results for newsprint sheets containing various fillers,  
interpolated to 6% Ash

Calcium Silicate Hydrate: TiSil  
Commercial Silicate: HuberSil  
Commercial Carbonate:  
Huber Carbonate

TiSil vs. HuberSil and  
Huber Carbonate

**Sheffield Sheet Smoothness**  
(Interpolated to 6% Filler)



**Fig 39: Sheffield Sheet Smoothness results for newsprint sheets containing various fillers, interpolated to 6% Ash.**